<u>IN THE CLAIMS</u>:

The following is a complete listing of the claims, and replaces all earlier version and listings.

Claim 1 (currently amended): A method of clamping the output values of filtered image data comprising a mapping of discrete sample values, said method comprising the steps of:

for each discrete sample value of the mapping:

determining a maximum sample value and a minimum sample value of a plurality of input discrete samples values, at least some of which represent colors, used to calculate the discrete sample value;

comparing [[the]] a number of colors represented by the plurality of input discrete sample values to a threshold value; and

clamping the output value of the discrete sample value to the range of the plurality of input discrete sample values utilizing the maximum sample value and the minimum sample value, depending at least on the comparison performed in said comparing step .

Claims 2 and 3 (canceled)

Claim 4 (previously presented): A method according to claim 1, wherein the threshold value is predetermined.

Claim 5 (previously presented): A method according to claim 1, wherein the threshold value is dependent on the plurality of input discrete sample values.

Claim 6 (previously presented): A method according to claim 1, wherein the threshold value is equal to eight.

Claim 7 (previously presented): A method according to claim 1, wherein the clamped output value is dependent on a magnitude of the discrete sample value.

Claim 8 (previously presented): A method according to claim 7, wherein the magnitude is compared to the maximum sample value and the minimum sample value.

Claim 9 (currently amended): A method of interpolating image data comprising a plurality of discrete sample values, said method comprising the steps of:

accessing at least one portion of the plurality of discrete sample values of the image data, at least some of which represent colors;

calculating kernel values for each discrete sample value of the portion using one of a plurality of kernels;

convolving the kernel values with the portion of discrete sample values to produce an output value;

comparing [[the]] a number of colors represented by the portion of discrete sample values to a threshold value; and

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clamping the output value to the range of the portion of discrete sample values, for use in interpolating the image data, depending at least on the comparison performed in said comparing step.

Claims 10 and 11 (canceled)

Claim 12 (previously presented): A method according to claim 9, wherein the threshold value is predetermined.

Claim 13 (previously presented): A method according to claim 9, wherein the threshold value is dependent on the plurality of input discrete sample values.

Claim 14 (previously presented): A method according to claim 9, wherein the threshold value is equal to eight.

Claim 15 (previously presented): A method according to claim 9, wherein the clamped output value is dependent on a magnitude of the discrete sample value.

Claim 16 (previously presented): A method according to claim 15, wherein the magnitude is compared to a maximum sample value and a minimum sample value of the portion of discrete sample values.

Claim 17 (previously presented): A method according to claim 16, wherein the output value is set to the maximum sample value if:

the number is less than a threshold value; and

the magnitude is greater than the maximum sample value of the

portion.

Claim 18 (previously presented): A method according to claim 16, wherein

the output value is set to the minimum sample value if:

the number is less than a threshold value; and

the magnitude is less than the minimum sample value of the

portion.

Claim 19 (previously presented): A method according to claim 16, wherein

the output value of the image data is produced for a plurality of color channels and the

maximum and minimum sample values are calculated over each of the color channels.

Claim 20 (currently amended): An apparatus for clamping the output values

of filtered image data comprising a mapping of discrete sample values, said apparatus

comprising:

means for determining, for each discrete sample value of the

mapping, a maximum sample value and a minimum sample value of a plurality of input

discrete samples values, at least some of which represent colors, used to calculate the

discrete sample value;

means for comparing [[the]] a number of colors represented by the

plurality of input discrete sample values to a threshold value; and

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means for clamping the output value of the discrete sample value to the range of the plurality of input discrete sample values utilizing the maximum sample value and the minimum sample value, depending ~~at least~~ on the comparison by said means for comparing .

Claims 21 and 22 (canceled)

Claim 23 (previously presented): An apparatus according to claim 20, wherein the threshold value is predetermined.

Claim 24 (previously presented): An apparatus according to claim 20, wherein the threshold value is dependent on the plurality of input discrete sample values.

Claim 25 (previously presented): An apparatus according to claim 20, wherein the threshold value is equal to eight.

Claim 26 (previously presented): An apparatus according to claim 20, wherein the clamped output value is dependent on a magnitude of the discrete sample value.

Claim 27 (previously presented): An apparatus according to claim 26, wherein the magnitude is compared to the maximum sample value and the minimum sample value.

Claim 28 (currently amended): An apparatus for interpolating image data comprising a plurality of discrete sample values, ~~at least some of which represent colors,~~ said apparatus comprising:

access means for accessing at least one portion of the plurality of discrete sample values of the image data;

calculation means for calculating kernel values for each discrete sample value of the portion using one of a plurality of kernels;

convolution means for convolving the kernel values with the portion of discrete sample values to produce an output value;

comparison means for comparing [[the]] a number of colors represented by the portion of discrete sample values to a threshold value; and

clamp means for clamping the output value to the range of the portion of discrete sample values for use in interpolating the image data, depending ~~at least~~ on the comparison performed by said comparison means.

Claims 29 and 30 (canceled)

Claim 31 (previously presented): An apparatus according to claim 28, wherein the threshold value is predetermined.

Claim 32 (previously presented): An apparatus according to claim 28, wherein the threshold value is dependent on the plurality of input discrete sample values.

Claim 33 (previously presented): An apparatus according to claim 28, wherein the threshold value is equal to eight.

Claim 34 (previously presented): An apparatus according to claim 28, wherein the clamped output value is dependent on a magnitude of the discrete sample value.

Claim 35 (previously presented): An apparatus according to claim 34, wherein the magnitude is compared to a maximum sample value and a minimum sample value of the portion of discrete sample values.

Claim 36 (previously presented): An apparatus according to claim 35, wherein the output value is set to the maximum sample value if:

the number is less than a threshold value; and

the magnitude is greater than the maximum sample value of the

portion.

Claim 37 (previously presented): An apparatus according to claim 35, wherein the output value is set to the minimum sample value if:

the number is less than a threshold value; and

the magnitude is less than the minimum sample value of the

portion.

Claim 38 (previously presented): An apparatus according to claim 35, wherein the output value of the image data is produced for a plurality of color channels and the maximum and minimum sample values are calculated over all color channels of the image data.

Claim 39 (currently amended): A computer readable medium, having a program recorded thereon, where the program is configured to make a computer execute a procedure to clamp the output values of filtered image data comprising a mapping of discrete sample values, said program comprising:

code for determining for each discrete sample value of the mapping, a maximum sample value and a minimum sample value of a plurality of input discrete samples values, at least some of which represent colors, used to calculate the discrete sample value;

code for comparing [[the]] a number of colors represented by the plurality of input discrete sample values to a threshold value; and

code for clamping the output value of the discrete sample value to the range of the plurality of input discrete sample values utilizing the maximum sample value and the minimum sample value, depending at least on the comparison performed by said code for comparing.

Claims 40 and 41 (canceled)

Claim 42 (previously presented): A computer readable medium according to claim 39, wherein the threshold value is predetermined.

Claim 43 (previously presented): A computer readable medium according to claim 39, wherein the threshold value is dependent on the plurality of input discrete sample values.

Claim 44 (currently amended): A computer readable medium according to claim 39, wherein the threshold value is equal to eight.

Claim 45 (previously presented): A computer readable medium according to claim 39, wherein the clamped output value is dependent on a magnitude of the discrete sample value.

Claim 46 (previously presented): A computer readable medium according to claim 45, wherein the magnitude is compared to the maximum sample value and the minimum sample value.

Claim 47 (currently amended): A computer readable medium, having a program recorded thereon, where the program is configured to make a computer execute a procedure to interpolate image data comprising a plurality of discrete sample values, ~~at least some of which represent colors,~~ said program comprising:

code for accessing at least one portion of the plurality of discrete sample values of the image data;

code for calculating kernel values for each discrete sample value of the portion using one of a plurality of kernels;

code for convolving the kernel values with the portion of discrete sample values to produce an output value;

code for comparing [[the]] a number of colors represented by the portion of discrete sample values to a threshold value; and

code for clamping the output value to the range of the portion of discrete sample values for use in interpolating the image data, depending at least on the comparison performed by said code for comparing.

Claims 48 and 49 (canceled)

Claim 50 (previously presented): A computer readable medium according to claim 47, wherein the threshold value is predetermined.

Claim 51 (previously presented): A computer readable medium according to claim 47, wherein the threshold value is dependent on the plurality of input discrete sample values.

Claim 52 (previously presented): A computer readable medium according to claim 47, wherein the threshold value is equal to eight.

Claim 53 (previously presented): A computer readable medium according to claim 47, wherein the clamped output value is dependent on a magnitude of the discrete sample value.

Claim 54 (previously presented): A computer readable medium according to claim 53, wherein the magnitude is compared to a maximum sample value and a minimum sample value of the portion of discrete sample values.

Claim 55 (previously presented): A computer readable medium according to claim 54, wherein the output value is set to the maximum sample value if:

the number is less than a threshold value; and

the magnitude is greater than the maximum sample value of the

portion.

Claim 56 (previously presented): A computer readable medium according to claim 54, wherein the output value is set to the minimum sample value if:

the number is less than a threshold value; and

the magnitude is less than the minimum sample value of the

portion.

Claim 57 (previously presented): A computer readable medium according to claim 54, wherein the output value of the image data is produced for a plurality of color channels and the maximum and minimum sample values are calculated over all color channels of the image data.

Claim 58 (previously presented): A method according to claim 8, wherein the output value is set to the maximum sample value if:

the number is less than the threshold value; and

the magnitude is greater than the maximum sample value of the plurality of sample value.

Claim 59 (previously presented): A method according to claim 7, wherein the output value is set to the minimum sample value if:

the number is less than a threshold value; and

the magnitude is less than the minimum sample value of the plurality of sample values.

Claim 60 (previously presented): A method according to claim 1, wherein the output value is clamped between maximum and minimum sample values determined for all of the image data.

Claim 61 (previously presented): A method according to claim 9, wherein the output value is clamped between maximum and minimum sample values determined for all of the image data.

Claim 62 (previously presented): An apparatus according to claim 27, wherein the output value is set to the maximum sample value if:

the number is less than the threshold value; and

the magnitude is greater than the maximum sample value of the plurality of sample values.

Claim 63 (previously presented): An apparatus according to claim 26, wherein the output value is set to the minimum sample value if:

the number is less than a threshold value; and

the magnitude is less than the minimum sample value of the plurality of sample values.

Claim 64 (previously presented): An apparatus according to claim 20, wherein the output value is clamped between maximum and minimum sample values determined for all of the image data.

Claim 65 (previously presented): An apparatus according to claim 28, wherein the output value is clamped between maximum and minimum sample values determined for all of the image data.

Claim 66 (previously presented): A computer readable medium according to claim 46, wherein the output value is set to the maximum sample value if:

the number is less than the threshold value; and

the magnitude is greater than the maximum sample value of the plurality of sample values.

Claim 67 (previously presented): A computer readable medium according to claim 39, wherein the output values is set to the minimum sample value if:

the number is less than a threshold value; and

the magnitude is less than the minimum sample value of the plurality

of sample values.

Claim 68 (previously presented): A computer readable medium according to claim 39, wherein the output value is clamped between maximum and minimum sample values determined fro all of the image data.

Claim 69 (previously presented): A computer readable medium according to claim 47, wherein the output value is clamped between maximum and minimum sample values determined for all of the image data.